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JUN 11 2007

## Remarks

Applicant respectfully requests that this Amendment After Final Action be admitted under 37 C.F.R. § 1.116.

Applicant submits that this Amendment presents claims in better form for consideration on appeal. Furthermore, applicant believes that consideration of this Amendment could lead to favorable action that would remove one or more issues for appeal.

Claims 1, 11 and 19 have been amended. No claims have been canceled. Therefore, claims 1, 2, 3, 7, 8, 10-12, 14, 15, 17-20, 22, and 24-26 are now presented for examination.

Claims 1, 11, and 19 stand rejected under 35 U.S.C. §112, second paragraph, as failing to particularly point out and distinctly claim the subject matter with applicant regards as the invention. Applicants submit that claims 1, 11, and 19 have been amended to appear in proper condition for allowance.

Claims 1-2, 4, 7-8, 11-12, 14-15, 17-20, 22, and 24-26 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Roeck et al. (U.S. Patent No. 6,574,796), in view of Vogel et al. (U.S. Patent No. 6,804,262). Applicant submits that the present claims are patentable over Roeck in view of Vogel.

Roeck discloses detecting or locating a viable data carrier in a downstream channel by a cable modem. When a cable modem is first installed by a cable operator or powered up by a user, it must first locate or tune in to the correct downstream channel in order to receive data from the headend of the cable plant. This time-consuming process can be shortened by performing two matches between the selected, potential downstream

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data carrier and constellation diagrams of certain modulation schemes. Through this method, potential channels for data carriers can be eliminated quickly by going through a "screening" process (the first constellation diagram match) thereby preventing those potential channels from going through a significantly more time-consuming second constellation match. The process begins with selecting a potential frequency channel from the downstream band. It is then determined whether the potential channel contains a signal modulated in a particular modulation scheme where the modulation scheme is one not normally used on signals in the downstream channel, such as QPSK. If the signal in the potential frequency channel is not modulated according to the particular modulation scheme, the cable modem determines whether the signal in the potential channel is modulated according to another particular modulation scheme, such as QAM64 or QAM256. These particular modulation schemes, however, are ones normally used on signals in the downstream channel. The determination of whether the signal in the potential channel is modulated according to the first particular modulation scheme is done rapidly and only potential channels containing a signal likely to be modulated according to the second particular modulation scheme are examined for the second determination step. See Roeck at Abstract.

Vogel discloses a cable head-end transmits a signal that includes a plurality of analog television signal components and at least one quadrature amplitude modulated (QAM) digital signal component, the signal components being defined by frequency channels. A cable modem has a tunable frequency selection system, operable at a first bandwidth, corresponding to the bandwidth of the frequency channels, and at a second, substantially narrower bandwidth, that provides a filtered signal and a power

measurement system that measures the power level of the filtered signal. The frequency selection system scans through the channels, operating at its second bandwidth, and, in each channel, tunes to a first frequency and a second frequency. The power levels of the filtered signals from the first and second frequencies are measured and compared to distinguish the QAM digital signal components from the other signal components. See Vogel at Abstract.

Claim 1 of the present application recites temporarily activating adaptive equalizer logic in a QAM demodulator from operation using a QAM technique to demodulate the selected channel according to a QPSK modulation technique. Applicants submit that both Roeck and Vogel fail to disclose or suggest a process of *temporarily activating adaptive equalizer logic in a QAM demodulator from operation using a QAM technique to demodulate the selected channel according to a QPSK modulation technique*.

Particularly, Roeck discloses a processor that determines whether a potential channel contains a signal modulated in a particular modulation scheme, such as QPSK, and if not modulated using the QPSK scheme, determining whether the signal in the potential channel is modulated according to another particular modulation scheme, such as QAM64 or QAM256. Applicant submits that determining whether a channel is modulated using QPSK or QAM modulation schemes is not equivalent to switching *from operation using a QAM technique to demodulate the selected channel according to a QPSK modulation technique*.

Since Roeck and Vogel each fail to disclose or suggest temporarily activating adaptive equalizer logic in a QAM demodulator from operation using a QAM technique

to demodulate the selected channel according to a QPSK modulation technique, any combination of Roeck and Vogel would also not disclose or suggest such a feature. Accordingly, claim 1, and its dependent claims are patentable over Roeck in view of Vogel.

Independent claims 11 and 19 limitations similar to those recited in claim 1. Therefore, claims 11 and 19, as well as their respective dependent claims, are patentable over Roeck in view of Vogel for the reasons discussed above with respect to claim 1.

Applicant respectfully submits that the rejections have been overcome, and that the claims are in condition for allowance. Accordingly, applicant respectfully requests the rejections be withdrawn and the claims be allowed.

The Examiner is requested to call the undersigned at (303) 740-1980 if there remains any issue with allowance of the case.

Please charge any shortage to our Deposit Account No. 02-2666.

Respectfully submitted,  
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Date: 6/11/07

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